

Prepared for the

**POWER4KIDS®
PARTNERSHIP ALLIANCE**



MID-TERM REPORT

EXECUTIVE SUMMARY

THE ISSUE

Many education professionals who have the responsibility of making education policy or educating children do not feel well served by the level of research available to them, particularly in the practical matters of educating students. Educators want and need to know how research findings apply to reading, math, and science curriculum, and what programs and which instructional practices are best for educating children. They desire the professional development and the support that is required to enhance their classroom performance in these subjects. Since NAEP's 2003 Report Card shows only 31% of 4th grade students at or above the proficient level in reading, Power4Kids is determined to provide answers to important questions in the area of reading attainment—to help both students and their teachers.

THE RESEARCH

The randomized field trial (considered the “gold standard” in research) used in the Power4Kids study is to our knowledge, the largest randomized field trial of remedial methods ever to be conducted in our public schools. Power4Kids is providing four different intensive reading interventions to the lowest 30% of readers in the 3rd and 5th grades. These children have failed to learn to read in early-elementary school. They are currently in special education, compensatory education, and regular classrooms. Their schools identified them as having serious reading deficiency. These children have a high likelihood of academic failure and dropping out of school. The inability to read also puts these children at risk for social-emotional issues such as low esteem, depression, behavioral problems, and delinquency.

Power4Kids speaks to the four primary causes of reading failure in students: the effects of an impoverished environment, physiological deficits, educational oversight, and English not spoken in the home. Ultimately, Power4Kids will demonstrate (1) the value of research-based remedial instruction, (2) the realistic ability to implement intensive interventions in schools, and (3) which of the four intervention programs work best for which student profile, using the Power4Kids model.

THE OBJECTIVE

The Power4Kids objective is to show that the struggle to close the reading gap in public schools can be overcome when research-based, highly effective reading interventions are applied. Power4Kids sets out to determine whether or not we have the tools to virtually eradicate reading failure in public schools. Based on what we are seeing, closing the reading gap is an achievable goal.

THE RELEVANCE

Power4Kids endeavors to establish a *working model* for American schools. To accomplish this the study must prove to superintendents, principals, teachers, parents, and policymakers that the Power4Kids model is both *effective* and *affordable*.



MEMBERS OF THE POWER4KIDS® PARTNER ALLIANCE

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STATUS OF POWER4KIDS—APRIL 2004

THE RESEARCH COMPONENTS

Power4Kids is a unique and vast undertaking, consisting of five components: (1) Intervention, (2) Evaluation & Impact, (3) Implementation & Fidelity, (4) Functional Magnetic Resonance Imaging, and (5) Cost-Effectiveness. The total cost of the Power4Kids study is \$9.6 million over four years.

THE CHALLENGES AND ACCOMPLISHMENTS

Implementing a study of this scale in diverse public schools has been an exciting adventure, but one not without its challenges. A few of note: union issues, ensuring compliance with state and federal mandates, logistical matters, attrition, concerns regarding random assignment to control, ethical responsibility, pregnancies and illnesses in the teaching pool, and student behavioral problems. However over the course of the event, vast cooperation along with the achievement of numerous, time-sensitive milestones have occurred. In March, 2004, we reached “mid-point” in the delivery of instruction to the children. For your perusal, below are highlights of the chronological, key events in the study:

- The Leadership Team introduced the concept and requirements of P4K to western Pennsylvania superintendents and principals in May, 2003. Volunteering to participate in the study were 50 schools from 27 different school districts.
- In June, 2003, the Scientific Advisory Board of Directors settled on a final experimental design and four reading intervention programs. Program provider submitted, through a Request for Application process, evidence of effectiveness with students in late-elementary school. The responses to the RFA were reviewed by the Board and awarded participation based on effectiveness data.
- In July, 2003 a meeting was held in Pittsburgh with the program providers selected to participate in the study. Representatives from Spell Read P.A.T., The Wilson Learning System, Corrective Reading, and Failure Free Reading attended the meeting. Specific issues related to teacher training and supervision of instruction were settled at this meeting.
- During July and August of 2003, each school nominated 3 teachers to participate in the study. They were interviewed by the P4K local coordinators, given brief assessments of fluency, accuracy in phonemic awareness and phonics, along with a range of interview questions concerning experience and attitudes toward various types of instruction.
- In early August of 2003, the Evaluation Team completed random assignment of the 50 schools in 27 school districts, to the four reading interventions.
- In mid-August, 2003, the following occurred:
 - ✓ 43 teachers were hired and informed of the intervention to which their school had been randomly assigned. (Note: Three additional teachers have since been hired and trained due to illness and pregnancies.)
 - ✓ As a group, the teachers completed 40 hours of professional development in their assigned intervention.



- ✓ In September, 2003, the teachers began an 8-week “residency” training program where they practiced delivering instruction under closely supervised conditions with struggling 4th grade readers.
- In October, 2003, the Impact Team completed the screening of 1,200 students who had been identified by their schools as poor readers in the 3rd and 5th grades. Students who achieved scores on a measure of word reading efficiency below the 30th percentile, and scores on a measure of vocabulary knowledge above the 5th percentile were selected as candidates for the study. After obtaining parental permission to participate in the study, students were randomly selected for treatment and control groups with a ratio of about 60/40 treatment students to control. Students were randomly assigned within school to treatment and control groups, whereas schools had been randomly assigned to treatment condition.
- In late October and early November of 2003, the Assessment Team began administering the pre-test assessment battery (14 tests) to 800+ students.
- The Functional Magnetic Resonance Imaging Team (fMRI) commenced imaging 120 students. This was completed before the intervention began on November 11, 2003.
- The interventions offers 100 hours of small-group instruction (1:3) delivered to the students for an hour each day, five days a week. Each teacher is responsible for conducting 4 teaching sessions per day.
- During the course of the intervention, the teachers are visited and observed monthly by their program trainers. Feedback and discussion of emerging instructional issues is provided. A member of the local P4K intervention management team visits the teachers every 2-3 weeks.
- The Implementation-Fidelity Team videotapes each teacher twice during the 100 hours of instruction, once during the first 50 hours, and once during the second 50 hours. The local intervention management team also fills out intervention checklists on each visit, reporting general aspects of instruction related to preparedness, pacing, and behavior management.
- As of April, 2004, we have 772 students participating in the study: 458 randomly assigned to treatment; 314 assigned to control.
- The Assessment Team conducted mini-testing using measures of word reading efficiency at approximately 17 hours of instruction on all children before the Holiday break. The mid-point testing (March 2004) involved a wider range of assessments. An additional mini-test will be completed at approximately 75 hours of instruction, and post testing will be near the end of the school year. The end point of instruction for most children will occur in mid to late May. Children will also be imaged again using fMRI technology at the conclusion of instruction.
- Children will receive follow-up testing at both one and two-year intervals after the interventions have concluded. The major outcome variables will include an assessment of children’s reading skills in three areas: phonemic decoding, word reading accuracy and fluency, and reading comprehension. We will have data available from three measures of reading comprehension. All P4K teams will continue to work closely together for the next few years.

FUNDING BY COMPONENT, BY MEMBER



INTERVENTION & PROFESSIONAL DEVELOPMENT: \$2,700,000

Efforts directed by the Principal Investigator, **Dr. Joseph Torgesen**, Executive Director of the Florida Center for Reading Research, Professor of Psychology and Education, Florida State University, and **Dr. Donna Durno**, Executive Director of the Allegheny Intermediate Unit.

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**Heinz Endowments
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W. K. Kellogg Foundation
Allegheny Intermediate Unit, Allegheny County, Pennsylvania**

EVALUATION & IMPACT: \$4,200,000

Efforts directed by Co-PI, **Dr. David Myers**, Vice-President of Research, Mathematica Policy Research.

FUNDED BY:

**Institute of Education Sciences, National Center for Education Evaluation, U.S. Department of Education
Smith Richardson Foundation**

IMPLEMENTATION & FIDELITY: \$800,000

Efforts directed by Co-PI, **Dr. George Bohrnstedt**, Senior Vice-President of Research, American Institute for Research.

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Ambrose Monell Foundation
The Raymond Foundation**

fMRI: \$800,000

Efforts directed by Co-PI's **Dr. John Gabrieli**, Director of Gabrieli Labs, Stanford University; **Dr. Marcel Just**, Director, Center for Cognitive Brain Imaging; Carnegie Mellon University; **Dr. Bennett Shaywitz**, Chief, Pediatric Neurology and Professor of Pediatrics, Neurology, and Child Study, Yale University School of Medicine.

FUNDED BY:

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MANAGEMENT, FUNDING FACILITATION & PRE-STUDY PLANNING: \$700,000

Efforts directed by **Ms. Cinthia Haan**, Chair of the Haan Foundation for Children.

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COST-EFFECTIVENESS STUDY: \$400,000

Efforts directed by **Dr. Jay Chambers**, Senior Research Fellow and Director of Education Resource Allocation and Cost Variation Studies, American Institutes for Research.

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